

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Spring 2018 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0016

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)				

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2018 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0016

Waterway			Bank	Unit Miles
Unit No. 01 Feather River			Right	4.06
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/20/2018 - 3/20/2018			
DWR Inspector	Sterling York			
Accompanied By	Shawn Freitag Sutter Maintenance Yard			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start		Rating **	A	Issue No.	3
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_MA0016_01_s_2013_3				
Comment Code					
Inspector Comment					
SBFCA has turned over levee to MA 16. The O&M manuals are located at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_MA0016_01_s_2013_4				
Comment Code					
Inspector Comment					
Sutter maintenance yard employees attend the annual Flood Fight class put on by DWR.					

No Photos

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_MA0016_01_s_2013_5				
Comment Code					
Inspector Comment					
Emergency supplies and equipment are stored at the Sutter Maintenance Yard.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	0.01	Rating **	A	Issue No.	8
LM End	4.05	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.310826 °	39.310826 °
				-121.636395 °	-121.637674 °
DWR ID	DWR_MA0016_01_s_2018_8				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
The annual vegetation is well maintained, Spring 2017.					

Photo 1 of 1 : SP_2018_MA0016_302_8_20180402_00013.jpg



View looking upstream landside of the well maintained annual vegetation, Spring 2018.

LM Start	0.01	Rating **	A	Issue No.	7
LM End	4.05	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.255964 °	39.310826 °
				-121.636421 °	-121.637674 °
DWR ID	DWR_MA0016_01_s_2018_7				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
The annual vegetation is well maintained, Spring 2017.					

Photo 1 of 1 : SP_2018_MA0016_302_7_20180402_00014.jpg



View looking upstream waterside of the well maintained annual vegetation, Spring 2018.

* Location
LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

** Rating
A : Acceptable
M : Minimally Acceptable
U : Unacceptable
N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type
Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	0.16	Rating **	C	Issue No.	12	
LM End	0.16	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			39.258105 °	39.258105 °	
				-121.636314 °	-121.636314 °	
DWR ID	DWR_MA0016_01_s _ 2018_12					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:143						
Site Designation:MA16-01						
Repair Type: Erosion						
Rating:Serious						
Field Date:7/13/2017						
Notes: 2017 Storm Damage has been repaired.						

No Photos

LM Start	1.86	Rating **	C	Issue No.	9
LM End	1.86	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.282131 °	39.282131 °
				-121.632117 °	-121.632117 °
DWR ID	DWR_MA0016_01_s _ 2018_9				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Limbs have been trimmed for access and visibility, Spring 2018.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	2.85	Rating **	M	Issue No.	14
LM End	3.08	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.293675 °	39.296748 °
				-121.636615 °	-121.638192 °
DWR ID	DWR_MA0016_01_s_2012_14				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 2 : SP_2018_MA0016_302_14_20180302_00006.jpg



Agricultural ditch land side slope and toe.

LM Start	2.85	Rating **	M	Issue No.	14 (cont)
LM End	3.08	Issue Type +	En	Location *	LS

Photo 2 of 2 : SP_2018_MA0016_302_14_20180402_00016.jpg



LM Start	3.06	Rating **	C	Issue No.	10
LM End	3.06	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			39.296536 °	39.296536 °
				-121.638125 °	-121.638125 °
DWR ID	DWR_MA0016_01_f_2017_10				
Comment Code					
TR : Tree or limb					
Inspector Comment					
The fallen tree has been removed, Spring 2018.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	3.39	Rating **	M	Issue No.	15
LM End	3.39	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			39.301218 °	39.301218 °
				-121.638332 °	-121.638332 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51931
DS_ID:17125
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 5/22/2017 LS inlet buried. WS access being blocked off by over grown vegetation. Pipe has been selected for internal cleaning and inspection as part of the DMP project. (DWR Sutter Yard - A/Freitag)12/1/2016 LS inlet completely buried. (DWR Sutter Yard - A/Freitag)5/26/2016 LS inlet was completely buried.6/8/2015 Concrete headwall is still cracked and inlet is buried. It was said to be replaced with the SBFCA project but the project skipped over in this area.12/29/2014 Same as last inspection.5/19/2014 Same as last inspection.11/6/2013 Same as last inspection.5/14/2013 SBFCA project recommends replacing in accordance with title 23. Same as last inspection.12/11/2012 Concrete headwall on LS toe is cracked through middle and pipe is buried in soil. pipe appears corroded.
FIELD_STRUCT_DESC: 1 of 2: 24-inch corrugated metal drainage pipe through the levee, 16.6 feet below the crown. Concrete headwalls on both the waterside (WS) and the landside (LS) ends. Flap gate on the WS end. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 148, August 1955, (Station 646+96)].
FS Date: 5/31/2017 7:29:38 AM

LM Start	3.39	Rating **	M	Issue No.	15 (cont)
LM End	3.39	Issue Type +	Ma	Location *	

Photo 1 of 2 : UCIP_SP_2018_51931_65782.jpg



Headwall at LS toe is cracked and the inlet is buried in soil.

Photo 2 of 2 : UCIP_SP_2018_51931_65781.jpg



Headwall on WS toe with flap gates.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
--	--	---	--	---	--

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	3.39	Rating **	M	Issue No.	16
LM End	3.39	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.301218 °	39.301218 °
				-121.638332 °	-121.638332 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51932
DS_ID:17183
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Indicator Found
UCIP Comments: 5/22/2017 LS inlet is buried. WS access is being blocked off by overgrown vegetation. (DWR Sutter Yard - A/Freitag)12/1/2016 LS inlet is completely buried. (DWR Sutter Yard - A/Freitag)5/26/2016 LS inlet was completely buried.6/8/2015 Concrete headwall is still cracked and inlet is buried. It was said to be replaced with the SBFCA project but the project skipped over in this area.12/29/2014 Same as last inspection.5/19/2014 Same as last inspection.11/6/2013 Same as last inspection.5/14/2013 SBFCA project recommends replacing in accordance with title 23. Same as last inspection.12/11/2012 Pipe buried on LS toe and should be inspected along with adjacent 24-inch once uncovered.
FIELD_STRUCT_DESC: 2 of 2: 24-inch corrugated metal drainage pipe through the levee, 16.6 feet below the crown. Headwalls at both the waterside (WS) and landside (LS) ends and a flap gate on the WS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 148, August 1955 (Station 646+96)].
FS Date: 5/31/2017 7:32:55 AM

LM Start	3.39	Rating **	M	Issue No.	16 (cont)
LM End	3.39	Issue Type +	En	Location *	

Photo 1 of 2 : UCIP_SP_2018_51932_65780.jpg



Pipe should be located on either side of the one visible in this picture.

Photo 2 of 2 : UCIP_SP_2018_51932_65779.jpg



Headwall and flap gate on WS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sutter Maintenance Yard Maintenance Area 0016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	4.06	03/20/2018 03/20/2018	Sterling York

LM Start	3.94	Rating **	M	Issue No.	11
LM End	4.09	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.309154 °	39.311298 °
				-121.637694 °	-121.637554 °
DWR ID	DWR_MA0016_01_s_2018_11				
Comment Code					
C1 : Add appropriate material and re-grade the levee to bring the crown above the design elevation.					
Inspector Comment					
Re-grading and aggregate base is scheduled for summer 2018.					

Photo 1 of 1 : SP_2018_MA0016_302_11_20180402_00017.jpg



View looking upstream of the crown that needs aggregate base added for an all weather access road which is scheduled for summer 2018, Spring Inspection 2018.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
--	---	---